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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number	10/731,971
Filing Date	December 10, 2003
First Named Inventor	William Fredenburg et al.
Group Art Unit	2184
Examiner Name	Maskulinski, Michael C.
Attorney Docket Number	112025-0164C1

Sheet	2	of	6
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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	21	5129077		Hillis	07-1992	
	22	5148547		Kahle et al.	09-1992	
	23	5151996		Hillis	09-1992	
	24	5157663		Major et al.	10-1992	
	25	5161156		Baum et al.	11-1992	
	26	5166674		Baum et al.	11-1992	
	27	5168499		Peterson et al.	12-1992	
	28	5175865		Hillis	12-1992	
	29	5212773		Hillis	05-1993	
	30	5222216		Parish et al.	06-1993	
	31	5222237		Hillis	06-1993	
	32	5247613		Bromley	09-1993	
	33	5247694		Dahl	09-1993	
	34	5255291		Holden et al.	10-1993	
	35	5261105		Pollet et al.	11-1993	
	36	5265207		Zak et al.	11-1993	
	37	5274631		Bhardwaj	12-1993	
	38	5289156		Ganmukhi	02-1994	
	39	5295258		Jewett et al.	03-1994	
	40	5297263		Ohtsuka et al.	03-1994	

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Walter F.

5/23/06

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet

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of

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Application Number

Complete if Known

10731,971

Filing Date

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First Named Inventor

William Fredenburg et al.

Group Art Unit

2184

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Maskulinski, Michael C.

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		Number	Kind Code ² (if known)			
	61	5623689		Kaneko	04-1997	
	62	5627965		Liddell et al.	05-1997	
	63	5679423		Hillis	09-1997	
	64	5710814		Klemba et al.	01-1998	
	65	5742604		Edsall et al.	04-1998	
	66	5751955		Sonnier et al.	05-1998	
	67	5764636		Edsall	06-1998	
	68	5787255		Parlan et al.	07-1998	
	69	5838915		Klausmeier et al.	11-1998	
	70	6021511		Nakano	02-2000	
	71	6101599		Wright et al.	08-2000	
	72	6112288		Ullner	08-2000	
	73	6119215		Key et al.	09-2000	
	74	6173386	B1	Key et al.	01-2001	
	75	6195739	B1	Wright et al.	02-2001	
	76	6349378	B1	Duranton et al.	02-2002	
	77	6356548		Nellenbach et al.	03-2002	
	78	6385747		Scott et al.	05-2002	
	79	6513108		Kerr et al.	01-2003	
	80	6505269		Potter	01-2003	

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Sheet	6	of	6	Attorney Docket Number	112025-0164C1
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1
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of

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Application Number

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~~Not Yet Assigned~~

Filing Date

December 10, 2003

First Named Inventor

William Fredenburg et al.

Group Art Unit

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Examiner Name

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112025-0164 C1

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		5,161,156		Baum, et al.	11-03-1992	
		5,166,674		Baum, et al.	11-24-1992	
		6,101,599		Wright, et al.	08-08-2000	
		6,119,215		Key, et al.	09-12-2000	
		6,173,386		Key, et al.	01-09-2001	
		6,195,739		Wright, et al.	02-27-2001	
		09/106,478		Kerr, et al.	06-29-1998	
		09/106,245		Nellenbach, et al.	06-29-1998	
		09/181,251		Marshall	10-28-1998	
		09/216,519		Kerr, et al.	12-18-1998	
		09/212,314		Scott, et al.	12-14-1998	
		09/432,526		Fredenburg, et al.	11-03-1999	
		09/432,464		Marshall, et al.	11-03-1999	
		09/384,504		Marshall, et al.	08-27-1999	
		09/390,079		Kerr, et al.	09-03-1999	
		09/571,213		Potter	05-16-2000	

FOREIGN PATENT DOCUMENTS

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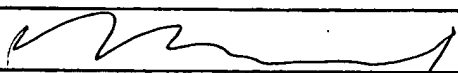
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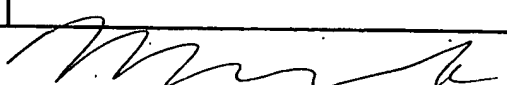
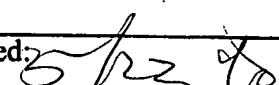
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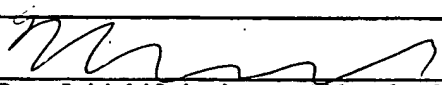
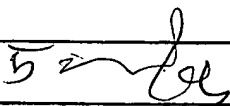
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Form PTO-1449 INFORMATION-DISCLOSURE STATEMENT		Docket No: 112025-0164C1 Applicant: William Fredenburg et al. Filed: December 10, 2003		Serial No. Not Yet Assigned Group 2184			
U. S. Patent Documents							
Ex.		Doc. No.	Date	Name	Class	Subcl.	Filed
		4,590,554	05/20/86	Glazer et al.	364	200	11/23/82
		4,598,400	07/01/86	Hillis	370	60	11/15/84
		4,709,327	11/24/87	Hillis et al.	364	200	05/31/83
		4,773,038	09/20/88	Hillis et al.	364	900	02/24/86
		4,791,641	12/13/88	Hillis	371	38	09/15/86
		4,805,091	02/14/89	Thiel et al.	364	200	06/04/85
		4,809,202	02/28/89	Wolfram	364	578	12/27/85
		4,870,568	09/26/89	Kahle et al.	364	200	06/25/86
		4,922,486	05/01/90	Lidinsky et al.	370	60	03/31/88
		4,949,239	08/14/90	Gillett, Jr. et al.	364	200	05/01/87
		4,965,717	10/23/90	Cutts, Jr. et al.	364	200	12/13/88
		4,993,028	02/12/91	Hillis	371	39.1	09/07/88
Foreign Patent Documents							
			Date	Country	Class	Subcl.	Filed
OTHER DOCUMENTS (Including Author, Title, Date, Pages, Etc)							
			Computer Architecture <i>The Anatomy of Modern Processors</i> , Pipeline Hazards, world wide web page http://ciips.ee.uwa.edu.au/~morris/CA406/pipe_hazard.html , 1999, pages 1-6.				
Examiner: 			Date Considered: 5/23/02				
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO-1449		Docket No: 112025-0164 c1		Serial No. Not Yet Assigned			
INFORMATION-DISCLOSURE STATEMENT		Applicant: William Fredenburg et al.					
		Filed: December 10, 2003		Group 2184			
U. S. Patent Documents							
Ex.		Doc. No.	Date	Name	Class	Subcl.	Filed
		5,070,446	12/03/91	Salem	395	500	02/08/91
		5,093,801	03/03/92	White et al.	364	726	07/06/90
		5,111,198	05/05/92	Kuszmaul	340	825.52	12/18/90
		5,113,510	05/12/92	Hillis	395	425	12/22/87
		5,117,420	05/26/92	Hillis et al.	370	60	01/07/91
		5,129,077	07/07/92	Hillis	395	500	01/16/90
		5,148,547	09/15/92	Kahle et al.	395	800	05/17/91
		5,151,996	09/29/92	Hillis	395	800	03/20/90
		5,157,663	10/20/92	Major et al.	371	9.1	09/24/90
		5,175,865	12/29/92	Hillis	395	800	07/01/91
		5,212,773	05/18/93	Hillis	395	200	02/22/91
		5,222,216	06/22/93	Parish et al.	395	275	07/12/91
Foreign Patent Documents							
			Date	Country	Class	Subcl.	Filed
OTHER DOCUMENTS (Including Author, Title, Date, Pages, Etc)							
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STATEMENT		Filed: December 10, 2003		Group: 2184		
U. S. Patent Documents						
Ex.	Doc. No.	Date	Name	Class	Subcl.	Filed
	5,222,237	06/22/93	Hillis	395	650	05/29/90
	5,247,613	09/21/93	Bromley	395	200	05/08/90
	5,247,694	09/21/93	Dahl	395	800	06/14/90
	5,255,291	10/19/93	Holden et al.	375	111	11/14/88
	5,261,105	11/09/93	Pottet et al.	395	725	05/04/90
	5,265,207	11/23/93	Zak et al.	395	200	04/08/93
	5,274,631	12/28/93	Bhardwaj	370	60	03/11/91
	5,289,156	02/22/94	Ganmukhi	340	146.2	06/16/93
	5,295,258	03/15/94	Jewett et al.	395	575	01/05/90
	5,301,310	04/05/94	Isman et al.	395	575	02/07/91
	5,317,726	05/31/94	Horst	395	575	06/26/91
	5,355,492	10/11/94	Frankel et al.	395	700	11/05/91
Foreign Patent Documents						
		Date	Country	Class	Subcl.	Filed
OTHER DOCUMENTS (Including Author, Title, Date, Pages, Etc)						
Examiner: <i>W. J. K.</i>			Date Considered: <i>5/22/02</i>			
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STATEMENT				Filed: December 10, 2003		Group 2184	
U. S. Patent Documents							
Ex.		Doc. No.	Date	Name	Class	Subcl.	Filed
		5,357,612	10/18/94	Alaiwan	395	200	01/11/93
		5,361,363	11/01/94	Wells et al.	395	800	08/16/91
		5,367,692	11/22/94	Edelman	395	800	05/30/91
		5,388,214	02/07/95	Leiserson et al.	395	200	01/14/94
		5,388,262	02/07/95	Hillis	395	650	04/26/93
		5,390,298	02/14/95	Kuszmaul et al.	395	200	01/14/94
		5,404,296	04/04/95	Moorhead	364	421	09/25/91
		5,404,562	04/04/95	Heller et al.	395	800	10/01/93
		5,410,723	04/25/95	Schmidt et al.	395	800	05/21/93
		5,455,932	10/03/95	Major et al.	395	489	10/20/92
		5,485,627	01/16/96	Hillis	395	800	12/28/92
		5,530,809	06/25/96	Douglas et al.	395	200.2	01/14/94
Foreign Patent Documents							
			Date	Country	Class	Subcl.	Filed
OTHER DOCUMENTS (Including Author, Title, Date, Pages, Etc)							
Examiner: <i>M. J. [Signature]</i>				Date Considered: <i>5/23/02</i>			
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U. S. Patent Documents							
Ex.		Doc. No.	Date	Name	Class	Subcl.	Filed
		5,535,408	07/09/96	Hillis	395	800	05/02/94
		5,561,669	10/01/96	Lenney et al.	370	60.1	10/26/94
		5,617,538	04/01/97	Heller	395	200.02	05/26/94
		5,621,885	04/15/97	Del Vigna, Jr.	395	182.11	06/07/95
		5,627,965	05/06/97	Liddell et al.	395	185.01	10/27/94
		5,673,423	09/30/97	Hillis	395	553	11/23/94
		5,710,814	01/20/98	Klemba et al.	380	9	07/23/96
		5,742,604	04/21/98	Edsall et al.	370	401	03/28/96
		5,751,955	05/12/98	Sonnier et al.	395	200.19	06/07/95
		5,764,636	06/09/98	Edsall	370	401	03/28/96
		5,787,255	07/28/98	Parlan et al.	395	200.63	04/12/96
		5,838,915	11/17/98	Klausmeier et al.	395	200.45	11/17/97
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Notice of References Cited	Application/Control No. 09/432,526	Applicant(s)/Patent Under Reexamination FREDENBURG ET AL.	
	Examiner Michael C Maskulinski	Art Unit 2184	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,021,511 /	02-2000	Nakano, Hiraku	714/10
	B	US-5,623,689 /	04-1997	Kaneko, Katsuyuki	712/11
	C	US-5,168,499 /	12-1992	Peterson et al.	714/30
	D	US-5,020,059 /	05-1991	Gorin et al.	714/3
	E	US-4,356,546 /	10-1982	Whiteside et al.	714/10
	F	US-			
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	J	US-			
	K	US-			
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	M	US-			

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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	Examiner Michael C Maskulinski	Art Unit 2184	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-4,438,494	03-1984	Budde et al.	714/2
	B	US-5,297,263 A	03-1994	Ohtsuka et al.	712/244
	C	US-5,530,804 A	06-1996	Edgington et al.	714/30
	D	US-6,112,288 A	08-2000	Ullner, Michael	712/20
	E	US-6,349,378 B1	02-2002	Durant et al.	712/28
	F	US-6,532,553 B1	03-2003	Gwilt et al.	714/38
	G	US-			
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FOREIGN PATENT DOCUMENTS

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